MA0001

### Flood Control Project Maintenance Levee Inspections

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start		Rating **	Α	Issue No.	ssue No. 19				
LM End		Issue Type +	Ма	Location *	WS				
Catagory Earthen Levee			GPS La	atitud	e/Longitude				
Calegory	Category					End			
Emergency Supplies &					0		0		
пеш	Equipmen	ıt		0		0			
DWR ID DWR_MA0001_01_s _ 2016_19									
		Comn	nent Cod	le					
			_						
		Inspecto	or Comm	nent					
The LMA h	nas emerg	ency supplies	and equ	ipment.					

No Photos

	Rating **	Α	Issue No.	28					
	Issue Type +	Ма	Location *						
Category Earthen Levee						GPS La	atitud	e/Longitude	
			Start		End				
•	s & Maintenai		0		0				
Manuals				0		0			
DWR ID DWR_MA0001_01_s _ 2013_28									
	Comn	nent Coo	le						
	Inspecto	or Comm	nent						
The LMA has O&M manuals.									
	Operation Manuals DWR_MA0	Issue Type + Earthen Levee  Operations & Maintenar Manuals  DWR_MA0001_01_s _ 201  Comn	Issue Type + Ma  Earthen Levee  Operations & Maintenance Manuals  DWR_MA0001_01_s _ 2013_28  Comment Coc  Inspector Comm	Issue Type + Ma Location *  Earthen Levee GPS La  Start  Operations & Maintenance Manuals  DWR_MA0001_01_s _ 2013_28  Comment Code  Inspector Comment	Issue Type + Ma Location *  Earthen Levee GPS Latitud Start  Operations & Maintenance Manuals  DWR_MA0001_01_s _ 2013_28  Comment Code  Inspector Comment	Issue Type + Ma Location * WS  Earthen Levee GPS Latitude/Longitude Start End  Operations & Maintenance Manuals  DWR_MA0001_01_s _ 2013_28  Comment Code  Inspector Comment			

No Photos

+ Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence
En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start		Rating **	Α	Issue No.		29		
LM End		Issue Type + Ma Location * WS						
Category		GPS La	atitud	le/Longitude				
Calegory				Start		End		
Item	Flood Pre	paredness &		٥		0		
пеш					٥		0	
DWR ID	DWR ID DWR_MA0001_01_s _ 2013_29							
		Comn	nent Cod	le				
		Inspecto	or Comm	ent				
The LMA	The LMA completed flood fight training in 2016.							

No Photos

LM Start	0.01	Rating **	N	Issue No.		92
LM End	0.01	Issue Type + Ma		Location *		LS
Category	Earthen L		GPS Latitude/Longitude			
Calegory				Start		End
Item	Trim / Thi	n Trees		39.2140	00°	39.214000 °
пеш			-122.0010	77 °	-122.001077 °	
DWR ID	DWR_MA0	001_01_f _ 201	6_92			

Comment Code

T5: Tree stumps.

Inspector Comment

No Photos

LM Start	0.09	Rating **	М	Issue No.		94	
LM End	0.09	Issue Type +	Ма	Location *		LS	
Category	Earthen Levee				GPS Latitude/Longitude		
Calegory			Start		End		
Item	Slope Sta	bility		39.2142	17°	39.214217°	
пеш			-122.0023	78 °	-122.002378 °		
DWR ID DWR_MA0001_01_f _ 2016_94							
		_					

Comment Code

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment

Repair the erosion along the damaged slope.

# Photo 1 of 1 : SP\_2017\_MA0001\_297\_94\_20170315\_00027.jpg



View of the slope instability along the landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	0.10	Rating **	М	Issue No.		95
LM End	0.10	Issue Type +	Ma	Location *	LS	
Category Earthen Levee			GPS La	titud	le/Longitude	
Calegory				Start		End
Item	Vegetation			39.2142	75 °	39.214275°
пеш				-122.0025	58 °	-122.002558 °
DWR ID	DWR_MA0	001_01_f _ 201	6_95			
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee						

slopes.

### Inspector Comment

Remove the arundo to maintain visibility along the landside toe.



View of the arundo along the landside toe.

LM Start	0.23	Rating **	M	Issue No.		96
LM End	0.23	Issue Type +	Ma	Location *		WS
Category Earthen Levee				GPS Latitude/Longitude		
Calegory	Category					End
Item	Erosion /	Bank Caving		39.2151	80°	39.215180°
item				-122.0047	12 °	-122.004712 °
DWR ID	R ID DWR_MA0001_01_f _ 2016_96					
		Comn	ant Coo	lo.		

### Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

### Inspector Comment



View of the erosion along the waterside slope.

U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	0.25	Rating **	N	Issue No.		97
LM End	0.25	Issue Type +	Ма	Location *		LS
Category	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End
Item	Trim / Thi	n Trees		39.2153	43°	39.215343
пеш		-122.005100 ° -122.00510				
DWR ID	DWR_MA0	001_01_f _ 201	6_97			
		Comn	nent Cod	le		
T5 : Tree s	stumps.					
		Inspecto	or Comm	nent		

No Photos

LM Start 0.38 Rating ** M Issue No. 98							
LM Start	0.38	Rating **	98				
LM End	0.38 Issue Type + Ma Location * WS						7
Category	evee		GPS La	atitud	e/Longitude		
Calegory	Start End						
Slope Stability 39.215878 ° 39.215878						>	
item	-122.007278 ° -122.007278						
DWR ID DWR_MA0001_01_f _ 2016_98						1	
	Comment Code						

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment



View of the slope instability along the waterside slope.

LM Start 0.49 Rating ** M Issue No. 100									
LM End	0.49	Issue Type +	Ma	Location * LS					
Category Earthen Levee GPS Latitude/Longitude									
Start End									
Trim / Thin Trees 39.215800 ° 39.215800 °									
-122.009402 ° -122.009402 °									
DWR ID DWR_MA0001_01_f _ 2016_100									
Comment Code									
T1 : Trim t	rees to at	least five feet	above g	round level.					

Inspector Comment



View of an overgrown bush obstructing visibility.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	0.53	Rating **	N	Issue No.		101
LM End	0.53	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Trim / Thi	n Trees		39.2158	08°	39.215808°
пеш				-122.0099	95 °	-122.009995 °
DWR ID	DWR_MA0	001_01_f _ 201	6_101			
		Comn	nent Cod	le		
T5 : Tree s	stumps.					
		Inspecto	or Comm	nent		

No Photos

LM Start	0.67 Rating ** M Issue No. 102							
LM End	0.69	Issue Type +	Ma	Location * WS				
Category	evee		GPS La	atitud	e/Longitude			
Calegory	Start End							
Trim / Thin Trees 39.216513 ° 39.21664					39.216642°			
пеш	-122.012440 ° -122.012773							
DWR ID DWR_MA0001_01_f _ 2016_102								
	Comment Code							

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



View of a tree obstructing visibility and access.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	0.68	Rating **	N	Issue No.		103
LM End	0.68	Issue Type +	Ma	Location *		WS
Category	evee		GPS La	atitud	e/Longitude	
Category				Start		End
Item	Trim / Thi	n Trees		39.2165	60°	39.216560°
пеш				-122.0125	30°	-122.012530 °
DWR ID	DWR_MA0	001_01_f _ 201	6_103			
		Comn	nent Cod	le		
T5 : Tree s	stumps.					
		Inspecto	or Comm	nent		



View of a tree stump along the waterside slope.

LM End         1.11         Issue Type +         Ma         Location *         LS           Category         Earthen Levee         GPS Latitude/Longitude           Start         End           Slope Stability         39.220728 °         39.22072	LM Start	1.11	Rating **	М	Issue No.		104
Category         Earthen Levee         GPS Latitude/Longitude           Item         Slope Stability         39.220728 ° 39.22072           -122.015885 ° -122.015885         -122.01588           DWR ID         DWR_MA0001_01_f _ 2016_104           Comment Code           S1 : Repair slope instability.							
Start   End   39.220728 ° 39.22072     Start   Start   End   39.220728 ° 39.22072     Comment Code   Cod	LIVI End		**	ivia	Location		LO
Start   End   39.220728   39.22072	Category	Earthen L	.evee		GPS La	atitud	e/Longitude
-122.015885   -122.015885   -122.015885     -122.015885	Calegory				Start		End
-122.015885   -122.015885   -122.015885     -122.015885	Itom	Slope Sta	bility		39.2207	'28	39.220728°
Comment Code S1 : Repair slope instability.	item				-122.0158	85°	-122.015885 °
S1 : Repair slope instability.	DWR ID	DWR_MA0	001_01_f _ 201	6_104			
			Comn	nent Cod	le		
Inspector Comment	S1 : Repai	r slope ins	tability.				
Inspector Comment							
			Inspecto	or Comm	nent		



View of a slope instability issue along the landside slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	1.92	Rating **	М	Issue No.		640	
LM End	1.92	1.92 Issue Type + Ma Location * LS					
Category Supplemental GPS Latitude/Longitude						le/Longitude	
Calegory	Start End						
DWR UCIP LMA Responsibility 39.231866 39.231866						39.231866 °	
item				-122.0154	42 °	-122.015442 °	
DWR ID							
	Comment Code						

### Inspector Comment

FS\_ID:51852 DS\_ID:16430 EP\_NO: 9487

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 WS end still partially plugged. (DWR Sutter Yard- AFreitag)10/24/2016 Ws end is till partially plugged.(DWR Sutter Yard- AFreitag)4/25/2016 WS pipe end is still plugged with soil. Rest of the pipe appeared to be in good condition.4/20/2015 WS pipe end is plugged about 50% by soil.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS pipe end has been reformed but is still clogged about 50% by sediment.10/18/2012 Remove dirt and debris in riser. Outlet deformed and blocked over 50%. Debris-round concrete section on landward side. This crossing was listed in the USACE Periodic Inspections as ID# USACE\_CESPK\_MA1C\_2010\_p\_0116 for crossing outlet deformed and clogged with dirt.

FIELD\_STRUCT\_DESC: 1 of 2: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gates in corrugated metal pipe (CMP) riser located on the waterside (WS) slope. Pipe daylights on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9487, 1974 - Jimeno Rancho) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 103+18)].

FS Date: 5/19/2017 1:20:29 PM

LM Start	1.92	Rating **	М	Issue No.	640 (cont)
LM End	1.92	Issue Type +	Ma	Location *	LS



Overview of levee crown and slopes looking upstream towards crosing.

### Photo 2 of 3: UCIP\_SP\_2017\_51852\_70063.jpg



View of WS looking upstream at CMP riser on slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	1.92	Rating **	М	Issue No.		640 (cont)	
LM End	1.92	Issue Type +	Ma	Location *		LS	
Category	Supplemental			GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	DWR UC	IP LMA Respo	onsibility	39.231866°		39.231866 °	
пеш				-122.0154	42 °	-122.015442 °	
DWR ID							
Comment Code							

### Inspector Comment

FS\_ID:51852 DS\_ID:16430 EP\_NO: 9487

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 WS end still partially plugged. (DWR Sutter Yard- AFreitag)10/24/2016 Ws end is till partially plugged.(DWR Sutter Yard- AFreitag)4/25/2016 WS pipe end is still plugged with soil. Rest of the pipe appeared to be in good condition.4/20/2015 WS pipe end is plugged about 50% by soil.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS pipe end has been reformed but is still clogged about 50% by sediment.10/18/2012 Remove dirt and debris in riser. Outlet deformed and blocked over 50%. Debris-round concrete section on landward side. This crossing was listed in the USACE Periodic Inspections as ID# USACE\_CESPK\_MA1C\_2010\_p\_0116 for crossing outlet deformed and clogged with dirt.

FIELD\_STRUCT\_DESC: 1 of 2: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gates in corrugated metal pipe (CMP) riser located on the waterside (WS) slope. Pipe daylights on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9487, 1974 - Jimeno Rancho) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 103+18)].

FS Date: 5/19/2017 1:20:29 PM

# Photo 3 of 3 : UCIP\_SP\_2017\_51852\_70062.jpg



View of LS looking upstream at crossing.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	1.92	Rating **	М	Issue No.		641
LM End	1.92	Issue Type +	Ма	Location *	LS	
Category Supplemental			GPS Latitude/Longitude			
Calegory			Start		End	
Item	DWR UCI	P LMA Respo	nsibility	39.231880°		39.231880°
пеш				-122.01543	32 °	-122.015432 °
DWR ID						
Comment Code						

### Inspector Comment

FS\_ID:51853 DS\_ID:17565 EP\_NO: 9487

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 Ws end still partially plugged. (DWR Sutter Yard- AFreitag)10/24/2016 Ws pipe end still plugged. (DWR Sutter Yard- AFreitag)4/25/2016 WS pipe end still plugged with soil. rest of pipe appears in good condition.4/20/2015 WS pipe end plugged about 50% by soil.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS pipe end has been reformed but is still partially blocked with dirt and debris.10/18/2012 WS-remove dirt and debris in riser. Outlet deformed and blocked over 50%. Burrow activity near outlet on waterward slope. Debris around concrete section on landward side. This crossing was listed in the USACE Periodic Inspections as ID# USACE\_CESPK\_MA1C\_2010\_p\_0116 for crossing outlet deformed and clogged with dirt.

FIELD\_STRUCT\_DESC: 2 of 2: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gates in corrugated metal pipe (CMP) riser on the waterside (WS) slope. Pipe daylights on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9487, 1974 - Jimeno Rancho) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 103+18)].

FS Date: 5/19/2017 1:21:31 PM

LM Start	1.92	Rating **	М	Issue No.	641 (cont)
I M End	1.92	Issue Type +	Ma	Location *	LS



View of levee crown and slopes looking upstream at crossing.

### Photo 2 of 3: UCIP\_SP\_2017\_51853\_70074.jpg



View of CMP risers located on WS slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	1.92	Rating **	М	Issue No.		641 (cont)
LM End	1.92	Issue Type +	Ма	Location *		LS
Category	Suppleme	ental		GPS La	titud	e/Longitude
Calegory	Category			Start		End
Item	DWR UC	DWR UCIP LMA Responsibility			30°	39.231880 °
пеш				-122.01543	32 °	-122.015432 °
DWR ID						

# Inspector Comment

Comment Code

FS\_ID:51853 DS\_ID:17565 EP\_NO: 9487

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 Ws end still partially plugged. (DWR Sutter Yard- AFreitag)10/24/2016 Ws pipe end still plugged. (DWR Sutter Yard- AFreitag)4/25/2016 WS pipe end still plugged with soil. rest of pipe appears in good condition.4/20/2015 WS pipe end plugged about 50% by soil.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS pipe end has been reformed but is still partially blocked with dirt and debris.10/18/2012 WS-remove dirt and debris in riser. Outlet deformed and blocked over 50%. Burrow activity near outlet on waterward slope. Debris around concrete section on landward side. This crossing was listed in the USACE Periodic Inspections as ID# USACE\_CESPK\_MA1C\_2010\_p\_0116 for crossing outlet deformed and clogged with dirt.

FIELD\_STRUCT\_DESC: 2 of 2: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gates in corrugated metal pipe (CMP) riser on the waterside (WS) slope. Pipe daylights on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9487, 1974 - Jimeno Rancho) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 103+18)].

FS Date: 5/19/2017 1:21:31 PM

# Photo 3 of 3 : UCIP\_SP\_2017\_51853\_70073.jpg

CMP pipe outlet deformed with over 50 percent blockage.

LM Start	2.16	Rating **	М	Issue No.		105	
LM End	2.16	Issue Type +	Ma	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Item	Erosion /	Erosion / Bank Caving			07°	39.235107°	
пеш				-122.0135	67°	-122.013567°	
DWR ID	DWR_MA0	001_01_f _ 201	6_105				
			. ^				

### Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

### Inspector Comment

# Photo 1 of 1 : SP\_2017\_MA0001\_297\_105\_20170315\_00036.jpg



View of an erosion site along the waterside berm.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	2.23	Rating **	М	Issue No.		642
LM End	2.23	Issue Type +	Ma	Location *		WS
Category	Suppleme	ental		GPS Lat	tituc	le/Longitude
Calegory	Category			Start		End
Item	DWR UCI	P LMA Respo	onsibility	39.23599	3°	39.235993 °
пеш				-122.01297	° 0	-122.012970 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:51854 DS\_ID:16429 EP\_NO: 9472

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 LS inlet partially plugged with soil. Some debris still present inside riser. (DWR Sutter Yard-

AFreitag)10/24/2016 Debris still inside of riser.(DWR Sutter Yard-AFreitag)4/25/2016 Pipe still inside of riser and LS end plugged about 50% by soil.4/20/2015 Same as last inspection.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 Same as last inspection.10/18/12 Remove debris from riser.

Landward inlet is blocked by over 50%. This crossing was listed in the USACE Periodic Inspections as ID#

USACE\_CESPK\_MA1C\_2010\_p\_0128 for sediment build up at inlet (landward side) and debris inside riser.

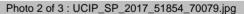
FIELD\_STRUĆT\_DESC: 54-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in corrugated metal pipe (CMP) riser on the waterside (WS) slope. 48-inch CMP at landside (LS) slope. This crossing crosses the levee at an angle. (Automatic Board Order (ABO) issued as Permit No. 9472, 1974 - Ballard)) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 120+00)].

FS Date: 5/19/2017 1:23:34 PM





View of levee crown looking downstream at crossing. CMP riser located on WS shoulder.





View of WS looking at slope and channel.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	2.23	Rating **	М	Issue No.		642 (cont)
LM End	2.23	Issue Type +	Ma	Location *		WS
Category	Suppleme	ental		GPS Lat	tud	e/Longitude
Calegory	Ty			Start		End
Item	DWR UC	IP LMA Respo	onsibility	39.23599	3°	39.235993 °
пеш				-122.01297	°	-122.012970 °
DWR ID						

### Inspector Comment

Comment Code

FS\_ID:51854 DS ID:16429 EP\_NO: 9472

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 LS inlet partially plugged with soil. Some

debris still present inside riser. (DWR Sutter Yard-

AFreitag)10/24/2016 Debris still inside of riser.(DWR Sutter Yard-AFreitag)4/25/2016 Pipe still inside of riser and LS end plugged about 50% by soil.4/20/2015 Same as last inspection.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 Same as last inspection.10/18/12 Remove debris from riser. Landward inlet is blocked by over 50%. This crossing was listed in the USACE Periodic Inspections as ID#

USACE\_CESPK\_MA1C\_2010\_p\_0128 for sediment build up at inlet (landward side) and debris inside riser.

FIELD\_STRUCT\_DESC: 54-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in corrugated metal pipe (CMP) riser on the waterside (WS) slope. 48inch CMP at landside (LS) slope. This crossing crosses the levee at an angle. (Automatic Board Order (ABO) issued as Permit No. 9472, 1974 - Ballard) ) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 120+00)]. FS Date: 5/19/2017 1:23:34 PM



View of outlet located at WS toe.

Issue Type Ma: Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	2.25	Rating **	М	Issue No.		643	
LM End	2.25	Issue Type +	Ма	Location *		WS	
Catagony	Category Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UCIP LMA Responsibility			39.23617	78°	39.236178°	
пеш				-122.0128	12 °	-122.012812 °	
DWR ID							

### Inspector Comment

Comment Code

FS\_ID:51855 DS ID:16428 EP\_NO: 9467

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 Abanoned- needs to be done so properly. (DWR Sutter Yard- AFreitag)10/24/2016 Abandoned.(DWR Sutter Yard- AFreitag)4/25/2016 Abandoned crossing. Unable to locate any WS and LS pipe ends.4/20/2015 Same as last inspection.6/18/2014

Same as last inspection.12/17/2013 Same as last

inspection.7/18/2013 Same as last inspection.10/18/2012 Only riser visible. Debris and sediment blocking gate. Gate inside riser is buried and non-functional. If crossing is abandoned, owner needs to properly abandon. This crossing was listed in the USACE Periodic Inspections as ID# USACE\_CESPK\_MA1C\_2010\_p\_0132 no culvert through the levee is visible here.

FIELD\_STRUCT\_DESC: \*ABANDONED\* 24-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in CM pipe riser on the waterside (WS) slope. No signs of inlet visible on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9467, 1974 - Lovell E. Spurgeon) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 120+60)].

FS Date: 5/19/2017 1:48:04 PM

LM Start	2.25	Rating **	M	Issue No.	643 (cont)
LM End	2.25	Issue Type +	Ma	Location *	WS

# Photo 1 of 3: UCIP\_SP\_2017\_51855\_70085.jpg



Overview of levee crown looking upstream at crossing.

### Photo 2 of 3: UCIP\_SP\_2017\_51855\_70084.jpg



View of WS slope and toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	2.25	Rating **	М	Issue No.		643 (cont)	
LM End	2.25	Issue Type +	Ma	Location *		WS	
Category	Supplemental			GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	DWR UCIP LMA Responsibility			39.23617	78 °	39.236178°	
пеш				-122.01281	12 °	-122.012812 °	
DWR ID							

# Comment Code

Inspector Comment

FS\_ID:51855 DS\_ID:16428 EP\_NO: 9467

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 Abanoned- needs to be done so properly. (DWR Sutter Yard- AFreitag)10/24/2016 Abandoned.(DWR Sutter Yard- AFreitag)4/25/2016 Abandoned crossing. Unable to locate any WS and LS pipe ends.4/20/2015 Same as last inspection.6/18/2014

Same as last inspection.12/17/2013 Same as last

inspection.7/18/2013 Same as last inspection.10/18/2012 Only riser visible. Debris and sediment blocking gate. Gate inside riser is buried and non-functional. If crossing is abandoned, owner needs to properly abandon. This crossing was listed in the USACE Periodic Inspections as ID# USACE\_CESPK\_MA1C\_2010\_p\_0132 no culvert through the levee is visible here.

FIELD\_STRUCT\_DESC: \*ABANDONED\* 24-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in CM pipe riser on the waterside (WS) slope. No signs of inlet visible on the landside (LS). (Automatic Board Order (ABO) issued as Permit No. 9467, 1974 - Lovell E. Spurgeon) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 120+60)].

FS Date: 5/19/2017 1:48:04 PM

Photo 3 of 3: UCIP\_SP\_2017\_51855\_70083.jpg



Unable to locate WS outlet.

LM Start	2.36	Rating **	М	Issue No.		108
LM End	2.36	Issue Type +	Ma	Location *		LS
Catagony	Category Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Slope Stability			39.2376	28°	39.237628°
пеш				-122.0119	67°	-122.011967°
DWR ID	DWR_MA0001_01_f _ 2016_108					

### S1: Repair slope instability.

# Inspector Comment

Comment Code

# Photo 1 of 1 : SP\_2017\_MA0001\_297\_108\_20170315\_00040.jpg



View of the slope instability along the landside slope.

Location	
LS: Land Side	N/A: Not Applicable
LS : Land Side WS : Water Side	
CB · Crown	

\* Rating

A: Acceptable

M: Minimally Acceptable

U: Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	3.33	Rating **	М	Issue No.		646		
LM End	3.33	Issue Type +	Ma	Location *		LS		
Category	Suppleme	ental		GPS La	titud	le/Longitude		
Calegory				Start		End		
Item	DWR UC	IP LMA Respo	onsibility	39.2508	43 °	39.250843 °		
item				-122.0079	92 °	-122.007992 °		
DWR ID								
	Comment Code							

### Inspector Comment

FS\_ID:51859 DS ID:16426 EP\_NO: 9490

Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 5/3/2017 Sediment build up in WS pipe end. WS

slide gate stem bent but it does not affect its operation. (DWR Sutter Yard- AFreitag)10/24/2016 WS slide gate stem is still bent.(DWR Sutter Yard- AFreitag)4/25/2016 WS slide gate is slightly bent. Rest of crossing appears to be in good condition. 4/20/2015 LS inlet still has some minor sediment build up. Needs to be cleaned.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS slide gate looks to be in good condition but stem is slightly bent. Not sure if bend will hinder gates operation or not. LS inlet is still blocked by minor sediment build up.10/18/2012 LS pipe slightly deformed and sediment build up blocking about 30% of opening; need to check the condition of the slide gate-need photo. Metal marker

down. This crossing was listed in the USACE Periodic Inspection as ID# USACE\_CESPK\_MA1C\_2010\_p\_0187 for sediment build up at landward toe FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in corrugated metal pipe (CMP) riser on the waterside (WS) slope. (Permit No. 9490, 1955 - Charles & Virginia Yerxa) [Additional

Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 177+67)].

FS Date: 5/19/2017 1:53:31 PM



View of LS looking upstream.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	3.33	Rating **	М	Issue No.	646 (cont)		
LM End	3.33	Issue Type +	Ma	Location *	LS		
Category	Suppleme	ental		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	DWR UC	IP LMA Respo	onsibility	39.2508	43 °	39.250843 °	
пеш				-122.0079	92 °	-122.007992 °	
DWR ID							
	Comment Code						

### Inspector Comment

FS\_ID:51859 DS\_ID:16426 EP\_NO: 9490

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 Sediment build up in WS pipe end. WS slide gate stem bent but it does not affect its operation. (DWR Sutter Yard- AFreitag)10/24/2016 WS slide gate stem is still bent. (DWR Sutter Yard- AFreitag)4/25/2016 WS slide gate is slightly bent. Rest of crossing appears to be in good condition. 4/20/2015 LS inlet still has some minor sediment build up. Needs to be cleaned.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS slide gate looks to be in good condition but stem is slightly bent. Not sure if bend will hinder gates operation or not. LS inlet is still blocked by minor sediment build up.10/18/2012 LS pipe

LS inlet is still blocked by minor sediment build up.10/18/2012 LS pipe slightly deformed and sediment build up blocking about 30% of opening; need to check the condition of the slide gate-need photo. Metal marker down. This crossing was listed in the USACE Periodic Inspection as ID# USACE\_CESPK\_MA1C\_2010\_p\_0187 for sediment build up at landward toe.

FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in corrugated metal pipe (CMP) riser on the waterside (WS) slope. (Permit No. 9490, 1955 - Charles & Virginia Yerxa) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 177+67)].

Photo 2 of 3 : UCIP\_SP\_2017\_51859\_70109.jpg



View of WS looking upstream.

FS Date: 5/19/2017 1:53:31 PM

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	3.33	Rating **	М	Issue No.	646 (cont)		
LM End	3.33	Issue Type +	Ма	Location *	LS		
Category	Suppleme	tal GPS Latitude/Longitude					
Calegory				Start	End		
Item	DWR UC	IP LMA Respo	nsibility	39.25084	13°	39.250843 °	
пеш				-122.00799	92 °	-122.007992 °	
DWR ID							
	Comment Code						

# Inspector Comment

FS\_ID:51859 DS\_ID:16426 EP\_NO: 9490

landward toe

Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 5/3/2017 Sediment build up in WS pipe end. WS

slide gate stem bent but it does not affect its operation. (DWR Sutter Yard- AFreitag)10/24/2016 WS slide gate stem is still bent. (DWR Sutter Yard- AFreitag)4/25/2016 WS slide gate is slightly bent. Rest of crossing appears to be in good condition. 4/20/2015 LS inlet still has some minor sediment build up. Needs to be cleaned.6/18/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 WS slide gate looks to be in good condition but stem is slightly bent. Not sure if bend will hinder gates operation or not. LS inlet is still blocked by minor sediment build up.10/18/2012 LS pipe slightly deformed and sediment build up blocking about 30% of opening; need to check the condition of the slide gate-need photo. Metal marker down. This crossing was listed in the USACE Periodic Inspection as

FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe through the levee, approximately 12-15 feet below the crown. Slide gate in corrugated metal pipe (CMP) riser on the waterside (WS) slope. (Permit No. 9490, 1955 - Charles & Virginia Yerxa) [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 177+67)].

ID# USACE\_CESPK\_MA1C\_2010\_p\_0187 for sediment build up at

FS Date: 5/19/2017 1:53:31 PM

## Photo 3 of 3 : UCIP\_SP\_2017\_51859\_70111.jpg



View of WS slope, riser with slide gate, and outlet.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	3.88	Rating **	М	Issue No.		50	
LM End	3.88	Issue Type +	Ma	Location *		LS	
Earthen Levee				GPS La	atitud	e/Longitude	
Calegory	Category					End	
Item	Vegetatio	n		39.2571	25 °	39.257125	0
пеш		-122.012648 ° -122				-122.012648	0
DWR ID	DWR_MA0	001_01_f _ 201	3_50				
		Comn	nent Cod	le			
V4 : Elderl	perries are	blocking visib	oility and	flood fight	сара	ability.	
		Inspecto	or Comm	nent			
1							

No Photos

LM Start	4.86	Rating **	М	Issue No.		3					
LM End	5.26	Issue Type + Ma Location *		5.26 Issue Type + Ma Location *		5.26 Issue Type + Ma Location *		Location *		WS	
Category	Suppleme	GPS Latitude/Longitude									
Calegory				Start		End					
Item		CE Erosion S	Survey,	39.265730	°	39.266315	0				
пеш	DRAFT			-122.01492	°	-122.020682	0				
DWR ID	DWR_MA0	001_01_s _ 201	6_3								
		_									

### Comment Code

### Inspector Comment

2009 - Slump in the middle of the section has left a vertical section on the bank. 2010 - Old cobble site unraveling, site extended downstream. 2015: Last observed in 2013. [2015 Site ID: SAC\_151-0\_R]





USACE 2013 Photo #1

LM Start	5.77	Rating **	М	Issue No.		35	
LM End	5.77	Issue Type +	Ma	Location *		LS	
Category	Earthen L	.evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		39.2727	73 °	39.272773	0
ILEIII				-122.0232	90°	-122.023290	0
DWR ID	DWR_MAG	001_01_s _ 201	2_35				
		Comn	nent Coc	te			

Comment Code

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	6.40	Rating **	М	Issue No.		658			
LM End	6.40	Issue Type +	Ma	Location *	LS				
Category	Supplemental				GPS Latitude/Longitude				
Calegory				Start		End			
Item	DWR UCI	P LMA Respo	onsibility	39.28172	21 °	39.281721 °			
пеш				-122.02189	94 °	-122.021894°			
DWR ID									

# Comment Code

### Inspector Comment

FS\_ID:51874 DS\_ID:16425 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/3/2017 Abandoned- needs to be done properly. (DWR Sutter Yard- AFreitag)10/24/2016 Abandoned(DWR Sutter Yard- AFreitag)4/25/2016 Abandoned crossing.4/20/2015 Same as last inspection.6/23/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 Same as last inspection.10/19/2012 Need to be properly abandoned concrete structure; plate covers concrete box; Concrete headwall damaged. This crossing was listed in the USACE Periodic Inspection as ID# USACE\_CESPK\_MA1C\_2010\_p\_0262 for damage to concrete structure (vertical 2 inch wide cracks and spalling visible). FIELD\_STRUCT\_DESC: \*ABANDONED\* 72-inch corrugated metal (precast concrete) drainage pipe through the levee at an unknown depth below the crown. Structure is blocked on the waterside (WS) end with 3-foot concrete plug installed in 1980. Slide gate in concrete well on the landside (LS) shoulder. Concrete headwall at both toes. WS headwall not found. [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 339+74)]. FS Date: 5/23/2017 10:13:24 AM

LM Start	6.40	Rating **	М	Issue No.	658 (cont)
LM End	6.40	Issue Type +	Ma	Location *	LS



View of WS no structure features visable.

### Photo 2 of 3: UCIP\_SP\_2017\_51874\_70180.jpg



Overview of levee crown looking downstream at crossing.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	6.40	Rating **	M Issue No.			658 (cont)	
LM End	6.40	Issue Type +	Ma	Location *	LS		
Category	ental	GPS Latitude/Longitude					
Calegory			Start		End		
Item	DWR UC	IP LMA Respo	onsibility	39.28172	1°	39.281721 °	
пеш				-122.02189	٥ °	-122.021894°	
DWR ID							
	Comment Code						

### Inspector Comment

FS\_ID:51874 DS\_ID:16425 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

FS Date: 5/23/2017 10:13:24 AM

UCIP Comments: 5/3/2017 Abandoned- needs to be done properly. (DWR Sutter Yard- AFreitag)10/24/2016 Abandoned(DWR Sutter Yard- AFreitag)4/25/2016 Abandoned crossing.4/20/2015 Same as last inspection.6/23/2014 Same as last inspection.12/17/2013 Same as last inspection.7/18/2013 Same as last inspection.10/19/2012 Need to be properly abandoned concrete structure; plate covers concrete box; Concrete headwall damaged. This crossing was listed in the USACE Periodic Inspection as ID# USACE\_CESPK\_MA1C\_2010\_p\_0262 for damage to concrete structure (vertical 2 inch wide cracks and spalling visible). FIELD\_STRUCT\_DESC: \*ABANDONED\* 72-inch corrugated metal (precast concrete) drainage pipe through the levee at an unknown depth below the crown. Structure is blocked on the waterside (WS) end with 3-foot concrete plug installed in 1980. Slide gate in concrete well on the landside (LS) shoulder. Concrete headwall at both toes. WS

headwall not found. [Additional Reference(s): DWR Levee Log, 1992. USACE Sacramento O&M Manual 137, August 1955, (Station 339+74)].

Photo 3 of 3 : UCIP\_SP\_2017\_51874\_70179.jpg



View of structure located in LS.

LM Start	6.85	Rating **	N	Issue No.		116	
LM End	6.85	Issue Type +	Ma	Location *		LS	
Category	Earthen L	.evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		39.288092 °		39.288092	0
пеш				-122.0210	62 °	-122.021062	0
DWR ID	DWR_MA0	001_01_f _ 201	6_116				
		Comn	nent Cod	le			
T5 : Tree s	stumps.						

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	7.28	Rating **	М	Issue No.		117		
LM End	7.28	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Trim / Thi	n Trees		39.2942	73°	39.294273 °		
пеш				-122.021493 °		-122.021493 °		
DWR ID	DWR_MA0	001_01_f _ 201	6_117					
		Comn	nent Cod	le				
T1: Trim t	rees to at	least five feet	above g	round level				
		Inspect	or Comm	nent				

No Photos

LM Start	7.70	Rating **	М	Issue No.		52
LM End	7.70	Issue Type +	Ma	Location *	WS	
Category	.evee	GPS Latitude/Longitude				
Category	Category					End
Item	Vegetatio	n		39.29730	)3 °	39.297303 °
пеш				-122.0252	57°	-122.025257 °
DWR ID DWR_MA0001_01_s _ 2012_52						
		Comp	nont Coc	10		

Comment Code

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

No Photos

LM Start	8.72	Rating **	М	Issue No.		119	
LM End	8.72	Issue Type +	Issue Type + Ma L		Location *		
Catagonia Earthen Levee				GPS Latitude/Longitude			
Calegory	Category					End	
Item	Slope Sta	bility		39.3082	72 °	39.308272°	
пеш				-122.0312	15 °	-122.031215°	
DWR ID DWR_MA0001_01_f _ 2016_119							

Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment



View of the slope instability caused by vehicles along the landside slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	10.13	Rating **	М	Issue No.		18			
LM End	10.13	Issue Type +	Ma	Location *		WS			
Cotogony	Earthen L	evee		GPS La	titud	e/Longitude			
Category		Start		End					
Item	Erosion /	Bank Caving		39.3286	97°	39.328697			
item				-122.029262 °		-122.029262			
DWR ID	DWR ID DWR_MA0001_01_s _ 2012_18								
		Comn	nent Cod	le					
E1 : Note	and monito	or erosion site							
		Inspecto	or Comm	nent					
Monitor the	e erosion s	site.							



View of the erosion along the waterside of the levee.

Photo 1 of 1: SP\_2017\_MA0001\_297\_120\_20170315\_00049.jpg

LM Start	11.00	Rating **	М	Issue No.		120	
LM End	11.00	Issue Type +	Ma	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Calegory				Start		End	
Item	Trim / Thi	n Trees		39.3407	28°	39.340728°	
пеш				-122.0328	97°	-122.032897 °	
DWR ID	VR ID DWR_MA0001_01_f _ 2016_120						
	Comment Code						

Comment Code

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



View of the tree with overhanging branches.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	11.01	Rating **	М	Issue No.		12		
LM End	11.01	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Vegetatio	n		39.3407	74°	39.340774°		
пеш				-122.0328	72 °	-122.032872 °		
DWR ID	DWR_MA0	001_01_s _ 201	2_12					
		Comn	nent Cod	le				
V4 : Elderl	perries are	blocking visib	ility and	flood fight	capa	ability.		
		Inspect	or Comm	nent				

No Photos

LM Start	11.46	Rating **	М	Issue No.		121	
LM End	11.46	Issue Type +	Ma	Location *		LS	
Cotogony	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Slope Sta	bility		39.3471	68°	39.347168°	
пеш				-122.0315	33°	-122.031533 °	
DWR ID	DWR_MA0	001_01_f _ 201	6_121				
		Comn	nent Cod	de			
S1 : Repai	ir slope ins	tability.					
		Inspecto	or Comm	nent			
Backfill an	d compact	:					
·							



View of the low spot along the levee toe created by adjacent ditch overflow.

N: Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

L							
LM Start	12.24	Rating **	M	Issue No.		122	
LM End	12.36	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		39.3573	322°	39.358283 °	
пеш				-122.026590 °		-122.024717 °	
DWR ID	DWR_MA0	001_01_f _ 201	6_122				
		Comn	nent Cod	de			
V1 : Contre		grass and wee	eds on th	e levee slo	pes	and	
		Inspecto	or Comm	nent			



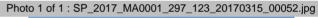
View of the Johnson grass along the levee toe and concrete lined ditch.

LM Start	12.69	Rating **	М	Issue No.		123	٦
LM End	12.79	Issue Type +	Ма	Location * LS		LS	
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory				Start		End	
Item	Vegetatio	n		39.3598	10°	39.359748	0
iteiii	-122.019402 ° -122.01760						0
DWR ID DWR_MA0001_01_f _ 2016_123							
							-

### Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

### Inspector Comment





View of the Johnson grass along the levee toe.

LM Start	13.33	Rating **	М	Issue No.		124
LM End	13.33	Issue Type +	Ма	Location *		LS
Category	evee	GPS Latitude/Longitude				
Calegory				Start		End
Item	Slope Sta	bility		39.36574	18°	39.365748 °
пеш			-122.01563	33 °	-122.015633 °	
DWR ID DWR_MA0001_01_s _ 2017_124						

### Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

### Inspector Comment

hoto 1 of 1 :	SP_2017	_MA0001_	_297_124	1_20170315	_00053.jpg
	1 1 3/2			The state of	
	-				
Ser Ser	45				
					A PARK
		1.7.1		11/01/2	018
			4 (3)		100

View of the slope instability caused by vehicles along the landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	13.46	Rating **	М	Issue No.		125		
LM End	13.46	Issue Type +	Ма	Location *		LS		
Cotogony	Earthen L	.evee		GPS La	atitud	e/Longitude		
Category				Start		End		
Item	Erosion /	Bank Caving		39.3676	00°	39.367600°		
пеш				-122.015248 °		-122.015248°		
DWR ID	DWR_MAG	001_01_f _ 201	6_125			·		
		Comn	nent Cod	de				
E1 : Note	and monito	or erosion site						
		Inspecto	or Comm	nent				



View of the landside toe erosion caused by ag pipe.

Photo 1 of 1: SP\_2017\_MA0001\_297\_127\_20170315\_00056.jpg

LM Start	14.18	Rating **	М	Issue No.		127		
LM End	14.18	Issue Type +	Ma	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
				Start		End		
Slope Stability			39.377288°		39.377288 °			
iteiii	item					-122.012360 °		
DWR ID DWR_MA0001_01_f _ 2016_127								
Comment Code								

S1: Repair slope instability.

Inspector Comment

Minor sinkhole on the landside toe.





View of a small sinkhole along the levee.

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	14.80	Rating **	М	Issue No.		129
LM End	14.80	Issue Type +	Ma	Location *	LS	
Earthen Levee				GPS La	atitud	le/Longitude
Category			Start		End	
Item Slope Stability			39.3860	° 800	39.386008°	
			-122.014270 °		-122.014270 °	
DWR ID DWR_MA0001_01_f _ 2016_129						
		Comn	nent Cod	le		
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.						
Inspector Comment						



View of the slope instability caused by vehicles along the landside slope.

LM Start	15.86	Rating **	N	Issue No.		131	
LM End	15.86	Issue Type +	Ma	Location *		LS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Item	Trim / Thin Trees			39.40087	5 °	39.400875	0
item				-122.009680	°	-122.009680	0
DWR ID DWR_MA0001_01_f _ 2016_131							

Comment Code

T5: Tree stumps.

### Inspector Comment

About 7 stumps on the landside.

No Photos

LM Start	15.99	Rating **	М	Issue No.		132
LM End	15.99	Issue Type +	Ма	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory						End
Item	Animal Control			39.40260	)5 °	39.402605 °
пеш				-122.00934	81°	-122.009348 °
DWR ID DWR_MA0001_01_f _ 2016_132						
		_				

### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



View of the rodent holes along the landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not A	applicable A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acce	ceptable C : Corrected	Ob : Design & System Obsolescence
CR · Crown	II · I Inaccentable	A/W · Accentable but Monitor	r & Maintain

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2017

# **Sutter Maintenance Yard Maintenance Area 0001**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	03/24/2017 03/24/2017	Bob Duffey

LM Start	16.35	Rating **	М	Issue No.		9
LM End	16.58	Issue Type +	Ma	Location *		WS
Catagony	Category Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	2015 USACE Erosion Survey,			39.4078	37°	39.411111°
item	DRAFT		-122.0087	63 °	-122.009238 °	
DWR ID DWR_MA0001_01_s _ 2016_9						
Comment Code						

### Inspector Comment

Erosion site added in 1997 and removed in 2005. 2009 - Site added back in, hard toe with slow moving erosion. Potential geotechnical failure. 2011 - Site extended downstream. 2015: Last observed in 2013. [2015 Site ID: SAC\_164-3\_R]

LM Start	16.35	Rating **	М	Issue No.	9 (cont)
LM End	16.58	Issue Type +	Ma	Location *	WS



USACE 2013 Photo #1

Photo 2 of 2: SP\_2017\_MA0001\_297\_9\_20170315\_00008.jpg



USACE 2013 Photo #2